Title (en)

DIODES, AND METHODS OF FORMING DIODES

Title (de)

DIODEN UND VERFAHREN ZUR BILDUNG VON DIODEN

Title (fr)

DIODES ET PROCEDES DE FABRICATION DE DIODES

Publication

EP 2289104 A4 20121003 (EN)

Application

EP 09767247 A 20090521

Priority

- US 2009044801 W 20090521
- US 14126508 A 20080618

Abstract (en)

[origin: US2009315020A1] Some embodiments include methods of forming diodes in which a first electrode is formed to have a pedestal extending upwardly from a base. At least one layer is deposited along an undulating topography that extends across the pedestal and base, and a second electrode is formed over the least one layer. The first electrode, at least one layer, and second electrode together form a structure that conducts current between the first and second electrodes when voltage of one polarity is applied to the structure, and that inhibits current flow between the first and second electrodes when voltage having a polarity opposite to said one polarity is applied to the structure. Some embodiments include diodes having a first electrode that contains two or more projections extending upwardly from a base, having at least one layer over the first electrode, and having a second electrode over the at least one layer.

IPC 8 full level

H01L 21/329 (2006.01); **H01L 29/872** (2006.01)

CPC (source: EP US)

B82Y 10/00 (2013.01 - EP US); **H01L 21/28** (2013.01 - US); **H01L 21/283** (2013.01 - US); **H01L 29/0665** (2013.01 - EP US); **H01L 29/0673** (2013.01 - US); **H01L 29/0676** (2013.01 - EP US); **H01L 29/068** (2013.01 - US); **H01L 29/08** (2013.01 - US); **H01L 29/417** (2013.01 - EP US); **H01L 29/66143** (2013.01 - EP US); **H01L 29/66151** (2013.01 - US); **H01L 29/872** (2013.01 - EP US); **H01L 29/88** (2013.01 - US); **H10N 70/00** (2023.02 - EP US); H01L 28/90 (2013.01 - EP US)

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

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US 2009315020 A1 20091224; **US 7858506 B2 20101228**; CN 102067321 A 20110518; CN 102067321 B 20130424; EP 2289104 A2 20110302; EP 2289104 A4 20121003; EP 2289104 B1 20181212; KR 101221155 B1 20130121; KR 20110011692 A 20110208; TW 201003791 A 20100116; TW I389213 B 20130311; US 11916129 B2 20240227; US 2011068325 A1 20110324; US 2012329210 A1 20121227; US 2015072523 A1 20150312; US 2016087071 A1 20160324; US 2017069732 A1 20170309; US 2021313445 A1 20211007; US 8273643 B2 20120925; US 8889538 B2 20141118; US 9397187 B2 20160719; US 9520478 B2 20161213; WO 2009154935 A2 20091223; WO 2009154935 A3 20100318

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